

Appendix E: Areas of Critical Environmental Concern

Report on the Application of the Relevance and Importance Criteria

**Prepared by:
United States Department of the Interior
Bureau of Land Management
Billings Field Office**

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E. Areas of Critical Environmental Concern

E.1 Executive Summary

As part of the Billings/Pompeys Pillar Resource Management Plan (RMP) process, the RMP Interdisciplinary Team (IDT) analyzed whether proposed Areas of Critical Environmental Concern (ACEC) meet the relevance and importance criteria. The Billings Field Office (BiFO) analyzed 13 proposed ACECs (existing, internally and externally proposed). Based on the analysis, 12 ACEC nominations met the relevance and importance criteria and 1 ACEC nomination did not. The following table summarizes each ACEC proposal, the rationale for the nomination and whether or not it will be carried forward for analysis in the RMP.

Table E-1 ACEC Determinations

Existing or Proposed ACECs	Nominated by:	Rationale	Carried forward for analysis
Bridger Fossil Area	Internal (previous decision)	protect paleontological values and NNL	Yes
Castle Butte	Internal (previous decision)	protect unique cultural values	Yes
East Pryor	Internal (previous decision)	Wild horse habitat, wildlife habitat, historical/cultural and paleontology resources, special status species plants, Crooked Creek Natural Area and Crooked Creek NNL	Yes
Four Dances	Internal (previous decision)	significant historic, cultural or scenic values, peregrine falcon nesting habitat, and for the "natural hazards" of the cliffs	Yes
Grove Creek	Internal / External	significant archaeological and traditional cultural values and special status species plants	Yes
Meeteetse Spires	Internal (previous decision)	Unique vegetation and scenic values and rare plant protection	Yes
Petroglyph Canyon	Internal (previous decision)	protect unique cultural values	Yes
Pompeys Pillar	Internal (previous decision)	Protect historic and cultural values	Yes
Pryor Foothills RNA	External	Area has a large concentration of Bureau special status plant species and rare plant communities. The Gyp Springs site contains high historic and cultural values	Yes
Stark Site	Internal (previous decision)	protect unique cultural values	Yes
Sykes Ridge	External	Rare plant protection	No
Weatherman Draw	Internal/External (previous decision)	protect unique cultural values	Yes
Greater Sage-Grouse Habitat	External	Protect Greater Sage-grouse habitat	Yes

These areas (12) will be identified as potential ACECs and will be fully considered for designation and management in the RMP (BLM Manual 1613.2.21). For the areas found not to meet the relevance and importance criteria, “the management prescriptions which are eventually established in the plan for such areas shall reflect consideration of the identified values.”

E.2 Introduction

As part of the process for developing the Billings/Pompeys Pillar RMP, the BLM, Billings Field Office (BiFO) IDT reviewed all BLM-administered public lands in the planning area to determine whether any areas should be considered for designation as Areas of Critical Environmental Concern (ACECs). The public was also requested (through scoping and notification in the *Federal Register* Notice of Intent to identify areas they feel should be considered for management as an ACEC (or other special designation).

The Federal Land Policy and Management Act (FLPMA) **requires that priority** shall be given to the designation and protection of ACECs. Areas of Critical Environmental Concern are defined in the FLPMA Sec. 103[43 U.S.C. 1702] (a) and in 43 C.F.R. 1601.0-5(a) as “areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.”

The following analysis and the resultant findings for ACEC relevance and importance criteria has been performed pursuant to FLPMA Sec. 202[43 U.S.C. 1712] (c)(3), 43 C.F.R. 1610-7-2 and BLM 1613 Manual.

E.3 Requirements for ACEC Designation

To be eligible for designation as an ACEC, an area must meet the relevance and importance criteria described in 43 Code of Federal Regulations (CFR) 1610.7-2 and BLM Manual 1613, *Areas of Critical Environmental Concern*, and need special management. The determinations in this report deal strictly with the relevance and importance criteria, and not special management attention.

Special management attention refers to “*management prescriptions developed during preparation of an RMP or amendment expressly to protect the important and relevant values of an area from the potential effects of actions permitted by the RMP, including proposed actions deemed to be in conformance with the terms, conditions, and decisions of the RMP.*” Thus, these are management measures that would not be necessary and prescribed if the relevant and important values were not present. A management prescription is considered to be special if it is unique to the area involved and includes terms and conditions specifically to protect the values occurring within the area.

BLM Manual 1613 includes the following guidance on incorporating management prescriptions for potential ACECs into appropriate alternatives:

“During the formulation of alternatives, management prescriptions for potential ACEC’s are fully developed. Management prescriptions will generally vary

across the plan alternatives. If there is no controversy or issues raised regarding the management of a potential ACEC, it may not be necessary to develop a range of management alternatives. In other words, management prescriptions may not vary significantly across alternatives. A potential ACEC (or portion thereof) must be shown as recommended for designation in any or all alternatives in the Draft RMP in which special management attention is prescribed to protect the resource or to minimize hazard to human life and safety. Because special management attention must be prescribed in at least one plan alternative, each potential ACEC will appear as a recommended ACEC in at least one plan alternative. Designation is based on whether or not a potential ACEC requires special management attention in the selected plan alternative (i.e. preferred alternative).”

Relevance and importance are defined as follows:

Relevance: There shall be present a significant historic, cultural, or scenic value, a fish or wildlife resource or other natural system or process, or natural hazard.

Importance: The above described value, resource, system, process, or hazard shall have substantial significance and value, which generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. A natural hazard can be important if it is a significant threat to life or property.

E.3.1 Relevance

An area meets the relevance criterion if it contains one or more of the following:

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans)
2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).
3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).
4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action might meet the relevance criteria if it is determined through the resource management planning process to have become part of a natural process.

E.3.2 Importance

An area meets the importance criterion if it meets one or more of the following:

1. Have more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
2. Have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
3. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of the Federal Land Policy and Management Act (FLPMA).
4. Have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.
5. Poses a significant threat to human life and safety or to property.

E.4 Evaluation Process

In compiling a list of areas to be analyzed in this report, the BLM ID teams followed the guidance set forth in BLM Manual 1613 and considered:

1. Existing ACECs
2. Areas recommended for ACEC consideration (external and internal nominations)
3. Areas identified through inventory and monitoring
4. Adjacent designations of other Federal and State agencies.

ACECs may be nominated by BLM staff, other agencies, or members of the public at any time. During the RMP revision scoping process, the BLM specifically solicited nominations from the public and other agencies. Information on special designations and ACECs was part of the scoping package and included in information made available at the public scoping meetings.

As part of the formal outreach process, the BLM received four external nominations from the public (refer to Table I). The BLM staff also reviewed information from BLM inventories, data, and other reports to ensure that all potentially relevant and important values within the planning areas were considered.

The maps included in this Draft RMP Map Appendix, along with the ACEC evaluations included in the section below, are for those areas that were found to meet the relevance and importance criteria. The boundaries of some of the proposed external nominations were modified to accurately represent where the values exist. The size and management prescriptions for each ACEC may vary by alternative to reflect a balance between the goals and objectives of the alternative and values being protected (BLM Manual 1613.2.22.B.1&2). The range of alternatives for the size of each ACEC being carried forward for further study is included in Chapter 2 – Alternatives.

ACEC Nomination Evaluation Forms

ACEC NOMINATION EVALUATION

NAME: Bridger Fossil Area ACEC (includes the Bridger Fossil Area National Natural Landmark)

LOCATION:

SIZE: 577 acres

NOMINATED BY: BLM

RATIONALE: protect paleontological values

EVALUATED BY: CSB

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

- 1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).**

The Bridger Fossil Area ACEC contains spectacular Cloverly Formation exposures and consists of variegated maroon and black shales. The fossils occur in the Cloverly Formation which is locally exposed badlands topography. Early Cretaceous vertebrates are found in this area. Early Cretaceous vertebrates of any kind are rare and poorly known from all regions of North America.

*The Bridger Fossil Area National Natural Landmark (designated in November 1973) is a 161 acre locale located entirely within the 577 acre Bridger Fossil Area ACEC. This site has produced nearly all of the known remains of *Deinonychus antirrhopus*, a new genus and species of carnivorous dinosaur. This small, bipedal flesh-eating dinosaur was about 3.5 feet tall, about 8 feet long, and probably weighted about 150 pounds.*

II. IMPORTANCE (characterized by one or more of the following):

- 1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?**

Professor Glenn Storrs (Adjunct Professor of Geology, University of Cincinnati and Director of Science Research & Withrow Fanny Curator of Vertebrate Paleontology, Cincinnati Museum Center) has been holding a field school and excavating at the Mother's Day Site each summer for the past several years. The Mother's Day site, which is located within the Bridger Fossil Area ACEC, contains the remains of at least 8 juvenile dinosaurs.

During the summer/fall of 2006, after the field school had ended, the Mother's Day site was vandalized.

Due to the Bridger Fossil Area ACEC containing early Cretaceous vertebrates, this ACEC contains more than locally significant qualities which give it special worth and distinctiveness. There is cause for concern for the fossils located in this ACEC (the vandalism in 2006 and the current market for vertebrate fossils).

- 2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?**

The fossils themselves are fragile, rare, and unique and are threatened by vandalism.

III. RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP

It is the recommendation of the specialist that the Bridger Fossil Area ACEC be retained as an ACEC. It meets relevance criterion 1 and importance criteria 1 and 2.

Approval by Associate Field Manager

/s/ Craig R. Drake

9/30/2009

Signature

Date

Concurred by Field Manager

/s/ James M. Sparks

9/30/2009

Signature

Date

Mother's Day Site photos



Summer 2007



Summer 2007



Ready for transport – summer 2008

ACEC NOMINATION EVALUATION

NAME: Castle Butte ACEC

LOCATION: [REDACTED]

SIZE: 184 acres

NOMINATED BY: BLM

RATIONALE: protect unique cultural values

EVALUATED BY: Carolyn Sherve-Bybee, Jay Parks

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

- 1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).**

Castle Butte has significant potential to provide information on Native American cultures of the Northwestern Plains during the Late Prehistoric and Historic time periods. It has clear association with specific ethnic groups still present in this region today, which suggests that it may be considered relevant to contemporary Native Americans.

Although there are numerous known rock art sites in the Northwestern Plains region, many of which are considered eligible to the National Register of Historic Places, site 24YL0418, the complex of rock art at Castle Butte is almost unique in the quality and concentration of artwork, particularly for the early historic time period. Panels at the site are believed to be biographical in character and to actually document events in the lives of 18th and 19th century Northwestern Plains horse nomads.

Castle Butte is one of a handful of sites in the Northwestern Plains which show a range of rock art styles dating over a long period of time. Examples of Native American art styles dating from around AD 1100 to the fur trade period have been identified on the site, as well as historic EuroAmerican graffiti dating from 1874 to the present. The rich concentration of pecked, incised, and more rarely, painted motifs of a variety of styles in a relatively small area has resulted in some panels which show superimposing of elements. This is an important key to the relative dating of the various styles.

Some of the panels at Castle Butte can also be directly associated with adjacent buried archaeological deposits which can be dated through the use of radiocarbon dating techniques. This situation increases the scientific value of the site immensely. Site 24YL0760, an adjacent multiple component camp site, is closely associated with the rock art panels and probably was used by the persons who created the rock art at Castle Butte. Projectile points recovered from the surface of the site show that occupation occurred throughout the period during which the rock art was created.

On-going research into the function of rock art in prehistoric and historic Native American societies on the Plains indicates that stylistic variations may give clues to ethnic identities of the persons who created the rock art as well as the general date of its creation. Information on ethnic affiliation and dates for the rock art can provide significant contributions to our understanding of prehistoric and early historic population movements and interactions on the Northwestern Plains. Because of their excellent preservation as well as the large numbers of individual panels, Castle Butte has been and will continue to be important in such investigations.

Consultations with representatives of Native American tribes elsewhere in the region has shown that rock art sites are often considered highly important and are sometimes sacred locations. Although specific consultation has not been undertaken for Castle Butte, the highly unusual concentration and quality of rock art at the location makes it likely that it too is of importance to contemporary Native groups. Specifically motifs suggesting ties to historical Crow and Blackfeet, and perhaps Cheyenne groups have been identified.

The viewshed is important to the setting of Castle Butte. From Castle Butte one can see south, across the Yellowstone River Valley to the Pryor Mountains and to the northwest to the Steamboat Butte rock art site. Possibly for these reasons this butte was chosen as the location for this rock art.

2. **A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).**

There are a number of raptor nest sites within the rock formation that are used for nesting, including a golden eagle nest site.

II. IMPORTANCE (characterized by one or more of the following):

1. **Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?**

Castle Butte meets importance criterion 1. It possesses information that is significant on a regional scale. Information which has been gained from the rock art and that the rock art still has the potential to yield. This has important implication for the understanding of the meaning of stylistic change in Native American rock art throughout the Plains area from Alberta to Texas

2. **Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?**

Castle Butte also meets importance criterion 2. The art is inherently fragile and could easily be destroyed through erosion or vandalism. Episodes of erosion have been documented in recent years in which rocks bearing panels have fallen from the butte. While vandalism is minimal at this time, Castle Butte is somewhat remote, but is easily accessible by county road. The site has been widely published in professional journals and monographs and it is well known locally as an archaeological site. Individual panels are probably valuable to collectors or artifact dealers and many could be easily removed by vandals.

III. RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP

It is the specialist's recommendation that Castle Butte be retained as an ACEC.

Castle Butte meets both relevance and importance criteria. This cultural complex consists of two sites: 24YL0418 (an extensive rock art site) and 24YL0760 (a buried occupation site). Each of these sites are considered eligible to the National Register of Historic Places.

Castle Butte is one of the premiere rock art sites of the Northwestern Plains. Information from the site has been used by a number of prominent rock art investigators in constructing and debating an understanding of the sequence and causes of stylistic changes in Native American rock art throughout the High Plains from Alberta to Texas, particularly for the early historic period. The quality, quantity, and concentration of rock art on the site, as well as the potential for relative and absolute dating clearly make this site more than locally significant. Its remote, yet easily accessible location makes it vulnerable to vandalism. Natural erosion is an on-going problem to the site.

Approval by Associate Field Manager	<u>/s/ Craig R. Drake</u>	<u>9/30/2009</u>
	Signature	Date
Concurred by Field Manager	<u>/s/ James M. Sparks</u>	<u>9/30/2009</u>
	Signature	Date



Battle Scene Petroglyph

ACEC NOMINATION EVALUATION

NAME: East Pryor ACEC

LOCATION: Pryor Mountains

SIZE: 29,550 acres (Alt A), 8,301 acres (Alt B), 32,767 acres (Alt C), 11,122 acres (Alt D)

NOMINATED BY: BLM

RATIONALE: Wild horses, wildlife habitat, historical/cultural, paleontology, SS plants and animals

EVALUATED BY: Jared Bybee, Nora Taylor, Carolyn Sherve-Bybee, Jay Parks, Ernest McKenzie

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

- 1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).**

Sykes Ridge has numerous vision quest sites and is an important religious value to the Crow Indians.

The Demijohn Flat National Register (NR) District provides locally and regionally important values to the area. Currently about ¼ of the Demijohn Flat NR District is within the existing ACEC boundary, with the rest of the rest of the National Register District not being included within the ACEC boundary.

- 2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).**

Numerous BLM sensitive species inhabit the area these species are: Townsends big-eared bat, spotted bat, pallid bat, Fringed myotis, Peregrine falcon, sage-grouse, Yellowstone cutthroat trout, possibly western spotted skunk. Other species that may inhabit the east priors or migrate seasonally are the Ferruginous Hawk, Swainsons Hawk, Burrowing Owl, numerous LBBs. This area also serves as the only remaining population of Big Horn sheep in the planning area.

- 3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).**

There are 10 BLM sensitive plant species that occur in the area and include: sweetwater milkvetch, Shoshonea, Lesicas's Bladderpod, Daggett Rockcress, Wind River milkvetch, Obscure Evening primrose, Yellow Beeplant, Leptodactylon phlox, Dwarf mentzelia, Short-leaved bluegrass,

The caves within the area are considered fragile, irreplaceable and vulnerable to adverse impacts.

The southern end of the area in the Crooked Creek NNL has fossil bearing Cretaceous deposits as well as three types of dinosaurs.

*The Upper segment of Crooked Creek, located within this ACEC, supports a population of Yellowstone Cutthroat Trout (YCT) (*Oncorhynchus clarkii bouvieri*) that has been designated a "core population." These pure strain YCT are very valuable in that they can be used to enhance other YCT populations or establish new populations in suitable waters. The YCT are listed as a Species of Concern by the MFWP and a federally sensitive species by the BLM and USFS.*

- 4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.**

The caves are fragile, complex environments with natural hazards requiring special rules for public access and use.

Big Coulee is prone to sudden flash flooding, even if no rainfalls in the low elevations water will flash flood from the high elevation areas and create a natural hazard for anyone in the bottom of big Coulee during an event.

II. IMPORTANCE (characterized by one or more of the following):

- 1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?**

The PMWHR draws visitors locally, nationally and internationally, and provides opportunities for remoteness and solitude, and outstanding wildlife viewing opportunities. The cave ecosystems present in the area are fragile, complex environments that support bat species.

The Demijohn Flat National Register District (24CB0478) provides regionally significant cultural resource values which give it special worth and distinctiveness and cause for concern. DemiJohn Flat National Register District retains archaeologically intact remnants of proto-historic period Crow tipi habitation. This site also retains unique qualities of outstanding scientific value on a regional level.

There are many vision quest sites located within the East Pryor ACEC. In most cases vision quest locations were chosen as a result the unhindered viewshed. Many of vision quest sites (and the viewsheds) are considered to be of religious significance to the Crow for the same reasons.

- 2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?**

The caves are fragile, complex environments with natural hazards requiring special rules for public access and use.

Lesica's bladderpod is the only sensitive species found exclusively within the East Pryor ACEC (but also falls within the existing WSA boundary).

Dinosaur fossils of sauropod, anklyosaur, ornithopod, and primitive duckbill are within the Crooked Creek NNL. Large and small dinosaur predator bones are also present.

The size and relatively pristine nature of DemiJohn Flat National Register District warrant the additional protection offered by an ACEC designation.

- 3. Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA?**

There are a number of regulations or policies in place to protect the fragile ecological environment of the East Pryor ACEC, including:

- 1988 cave resource protection act mandates the protection of caves, cave ecosystems, and cave dependent species*
- I.M 6840 directs the BLM to manage and protect sensitive species the same as candidate species as to prevent listing under the ESA*
- Wild Free-Roaming Horse and Burro Act mandates protection of wild horses*
- Paleontological Resources Protection Act 2009 mandates the protection of vertebrate fossils*
- ARPA mandates the protection of archeological resources*
- Antiquities Act of 1906*
- Executive Order 13007 (Sacred Sites)*

- 4. Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare?**

- 5. Poses a significant threat to human life and safety or to property?**

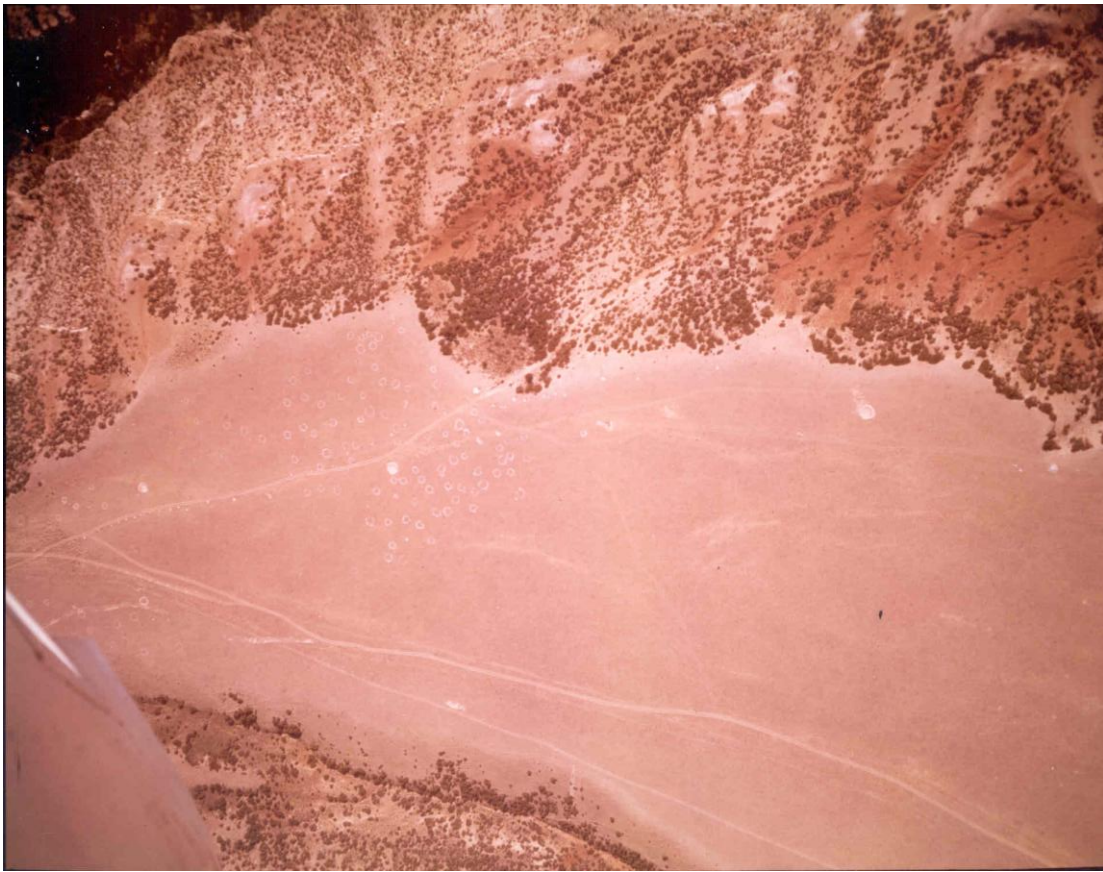
III. RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP

Based on specialists' review, the East Pryor ACEC meets the following relevance and importance criteria:

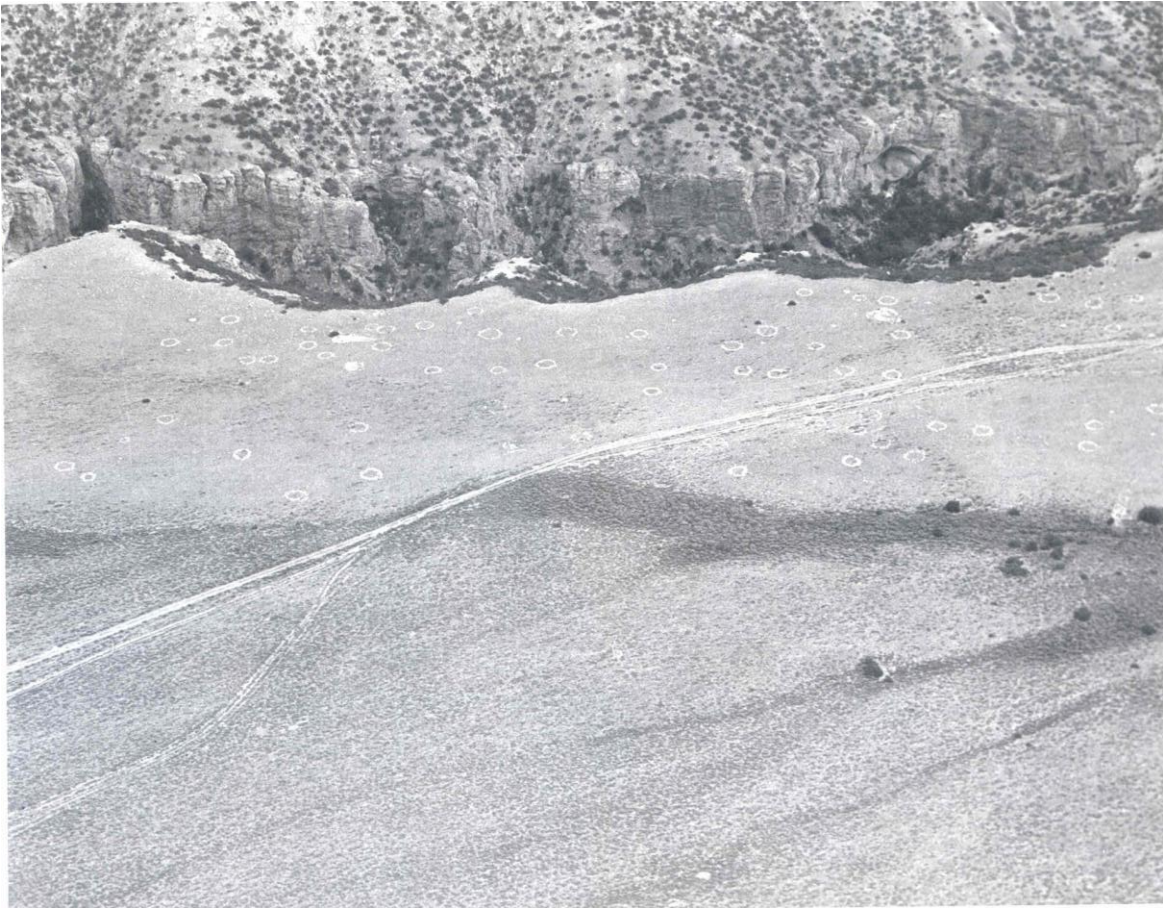
- *Native American religious values meet Relevance Criteria 1 and Importance Criteria 3*
- *The cave ecosystems are considered fragile and meet Relevance Criteria 3 and Relevance Criteria 4 and Importance Criteria 3, although cave formations in limestone formations are not rare or unique.*
- *Sensitive species: the Townsends big-eared bat is considered extremely vulnerable to human disturbance and will abandon roosts and young if disturbed and is a former candidate species. The spotted bat is the least understood bat in North America. Fringed myotis and pallid bat are common throughout the western United States. Peregrine falcon is no longer on the T&E list, however, it is still managed as a special status species. Sage-grouse is uncommon on the East Pryors. Western spotted skunk has very little information collected or studied about the species. Yellowstone cutthroat trout is susceptible to hybridization with non-native trout. The species meet Relevance Criteria 2 and Importance Criteria 3.*
- *The vertebrate fossil area Crooked Creek NNL meets the Relevance Criteria 3 and 4 and the Importance Criteria 3.*
- *Sensitive Plants - Lesica's bladderpod is the only sensitive species found exclusively within the East Pryor ACEC and meets Relevance Criteria 3 and Importance Criteria 2. The other sensitive plant species have limited distribution locally or regionally.*
- *The Demijohn Flat NR District provides locally and regionally significant historical values, and meets Relevance Criteria 1 and Importance Criteria 1 and 2.*

The East Pryor ACEC is designated for wild horses, wildlife, historical/cultural and paleontological resources. The Relevance Criterion for East Pryor ACEC was identified as meeting 1, 2, and 3; and Importance Criteria 2 and 3. Much of the East Pryor ACEC boundary overlaps three Wilderness Study Areas (WSAs): Pryor Mountain, Burnt Timber and Bighorn Tack-On WSAs. The management within the WSAs affords protection for the resource values present within the ACEC. Therefore, it is the specialist's recommendation to retain only those BLM public lands of the existing East Pryor ACEC that fall outside the WSAs to eliminate the overlapping designations. It is the specialists' recommendation to also include expanding the East Pryor ACEC to the west to include all of Demijohn Flat National Register District.

Approval by Associate Field Manager	<u>/s/ Craig R. Drake</u>	<u>9/30/2009</u>
	Signature	Date
Concurred by Field Manager	<u>/s/ James M. Sparks</u>	<u>9/30/2009</u>
	Signature	Date



DemiJohn Flat aerial view 1



DemiJohn Flat aerial view 2

ACEC NOMINATION EVALUATION

NAME: Four Dances Natural Area ACEC

LOCATION:

SIZE: 784 acres

NOMINATED BY: BLM

RATIONALE: significant historic, cultural or scenic values, peregrine falcon nesting habitat, and for the "natural hazards" of the cliffs

EVALUATED BY: CSB, L. Hardy, J. Parks

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

- 1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).**

When the BLM acquired the area now known as the Four Dances Natural Area/ACEC in 1998, the Yellowstone River Parks Association nominated the area as an ACEC. At that time the area was known as Sacrifice Cliff.

Three recorded sites are located within the Four Dances Natural Area ACEC: 24YL1535, 24YL1536, 24YL1537. 24YL1535 is a lithic scatter, 24YL1536 is a petroglyph site and 24YL1537 is also a petroglyph site. Both 24YL1536 and 24YL1537 are considered to be eligible to the National Register. There are two known unrecorded sites located within the Four Dances Natural Area ACEC, the Crow vision quest site and the Will James cabin. The vision quest site is considered a sacred site by the Crow and although it has not been evaluated for National Register eligibility, it should be considered eligible. The Will James cabin also has not been recorded and evaluated for National Register eligibility.

Historically, the Crow tribe used this area for vision questing – mostly due to the view from the location of the vision quest site (four mountain ranges can be seen). In 2008, the Crow held a Men's Health Ceremony at the Four Dances Natural Area/ACEC. As part of the ceremony, prayers were said at the vision quest site. The Crow do hold the area around the vision quest site as being sacred.

Will James (1892-1942) is a well known character (artist and writer) of the American West. His use of the cabin is well known locally.

- 2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).**

Peregrine falcons nest on the cliffs at the Four Dances Natural Area / ACEC. Peregrine Falcons were removed from the U.S. Endangered Species list in August 1999. The peregrine falcon is currently protected by the Migratory Bird Treaty Act. The peregrine falcon is a protected non-game species for which it is illegal to collect, harm, or otherwise remove from its natural habitat.

- 3. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.**

The cliffs at the Four Dances Natural Area/ACEC are considered to be natural hazards (dangerous cliffs). Four Dances is bordered to the west by these cliffs which rise 200-500 feet above the Yellowstone River.

II. IMPORTANCE (characterized by one or more of the following):

- 1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?**

The Four Dances Natural Area / ACEC has more than locally significant qualities which give it special worth, consequence, meaning, and distinctiveness compared to other resources. It is an undeveloped 765 acres immediately adjacent to the city of Billings. It is open to the public during the daylight hours for hiking.

The Four Dances Natural Area / ACEC was named after Chief Four Dances, an important religious and military figure in Crow Indian History. The name in the Crow language is Annishi Shopash translated as "Place of Four Dances". The cliff is traditionally recognized as a fasting (vision) quest site used by Chief Four Dances in the 1830s, during the heyday of the Rocky Mountain fur trade and the intertribal plains wars. Four Dances took his name from the vision he received while fasting at this location.

Will James had a cabin which is located within the Four Dances Natural Area ACEC

- 2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?**

The undeveloped nature of this location so close to the city of Billings makes it vulnerable to adverse change.

- 3. Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare?**

The Four Dances Natural Area/ACEC has qualities which warrant highlighting in order to satisfy management concerns about public safety. Those concerns are with regards to the cliffs. Currently the BLM has some management prescriptions for the ACEC which prohibit rock climbing and hang gliding from the cliffs..

III. RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP

It is the recommendation of the specialist to retain the Four Dances Natural Area ACEC. It meets relevance criteria 1, 2, and 3 and importance criteria 1, 2, and 3.

Approval by Associate Field Manager	<u>/s/ Craig R. Drake</u>	<u>9/30/2009</u>
	Signature	Date
Concurred by Field Manager	<u>/s/ James M. Sparks</u>	<u>9/30/2009</u>
	Signature	Date



The Four Dances Natural Area/ACEC



Crow Men's Health Ceremony at Four Dances Natural Area ACEC June 2008

ACEC NOMINATION EVALUATION

NAME: Grove Creek ACEC

LOCATION: west half of Grove Creek area

SIZE: 0 Acres (Alt A), 8,251 Acres (Alt B), 9,445 Acres (Alt C), 8,251 acres (Alt D)

NOMINATED BY: BLM and Public

RATIONALE: significant archaeological and traditional cultural values and special status plants

EVALUATED BY: Carolyn Sherve-Bybee, Nora Taylor, Jay Parks

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

- 1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).**

The Gold Creek complex consists of four sites initially recorded as discrete sites or feature clusters, (24CB0622, 25CB0148, 24CB0625, and 24CB1190) and have since been determined to be two very large "site complexes". The cluster of recorded sites comprising the Ruby Creek Complex includes 24CB0148, 24CB0149, 24CB0622, 24CB1193, 24CB1194, and 24CB1839. Together, these sites contain over 300 individual tipi ring features and extend over more than a square mile. Roughly 2/3 of this complex is located on private land within the Grove Creek development while 1/3 is located on BLM managed public lands.

24CB0622: This site contains 170 stone features including 157 discreet tipi rings. The site is eligible for nomination to the National Register of Historic Places under criterion D. This site was originally recorded in 1973. The original recordation did not address the extent of the site, but did state that informant's testimony indicated that the tipi rings extended across much of the surrounding benches. Site 24CB0148 (37 rings) and site 24CB0149 (16 rings) are essentially coincident with site 24CB0625 and should have been re-recorded as part of that site. The Ruby Creek complex should also include sits 24CB1193, 24CB1194 and 24CB1839. The Ruby Creek complex is eligible to the National Register under criterion A (national events) in that it was the locality of a series of complex behavioral events that occurred for over 4,000 years based on the projectile point typology and recovered radiocarbon dates. It is also eligible to the National Register under criterion C in that design and construction of the individual features represents a style of construction. Also testing of several features demonstrated that the area still can yield information.

The Gold Creek Complex is of similar nature to that of the Ruby Creek Complex and indeed may be extant as a single large site complex extending roughly three miles north/south and about one mile east/west. 24CB0625 was originally recorded in 1973 as a cluster of a half dozen tipi rings on a low ridge overlooking Gold Creek. In 1989, site 24CB1190 was recorded which contained 69 discreet ring features. These two sites are contiguous and are probably part of the same occupation.

The Crow tribe believes these site complexes to be a Traditional Cultural Property, although it has not been recorded as such.

Members of the Crow tribe have identified the area as being of religious significance.

- 2. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).**

*The western part of the Gold Creek complex contains populations of Beartooth large-flowered goldenweed (*Haplopappus carthamoides* var. *subsquarrosa*). This is a regionally endemic species restricted to the eastern*

front of the Beartooth Mountains and the foothills of the Pryor Mountains. *Haplopappus carthamoides* is known from only eight locations in Montana. The area is adjacent to recovery areas for the Grizzly Bear and Gray Wolf.

II. II. IMPORTANCE (characterized by one or more of the following):

- 1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?**

The Gold Creek complex has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern. The projectile point typology and recovered radiocarbon dates indicate that this area has been occupied (the tipi rings) for over 4000 years.

While this area has not yet been designated a Traditional Cultural Property, the area contains Native American burials and sacred sites.

- 2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?**

The Gold Creek Complex has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.

The private land surrounding the BLM managed public lands in the Grove Creek area have been subdivided and the parcels are being sold. ROW applications have been submitted to access some of these parcels. If ROWs are approved, road construction could adversely damage many of the sites. The Crow tribe has requested that the sites be avoided by road construction. Feature density within both complexes is of high enough density that avoidance is not a practical option. In the case of the Ruby Creek road, avoidance would mean substantial re-routing of the road. In Grove Creek, no study has been done to avoid the sites in question and any potential re-route would most likely still impact other loci within the potential TCP district.

Improved and increased roads in this area will also lead to vandalism of the sites in the Grove Creek Complex (tipi rings, burials, sacred sites, etc.). In 1990, during the construction of a road and well pad it, five individual features within site 24CB0622 were vandalized by looters. The BLM in consultation with the SHPO determined that this vandalism was a direct result of increased access from the newly constructed road.

Beartooth large-flowered goldenweed is a regionally endemic species restricted to the eastern front of the Beartooth Mountains and the foothills of the Pryor Mountains.

Development of the area (oil and gas development, ROWs, etc.) would bring more people into the area. As the Grove Creek area is of religious significance to the Crow, the development or having more people in this area would hinder/restrict Crow religious practices in the area.

- 3. Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA?**
- 4. Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare?**
- 5. Poses a significant threat to human life and safety or to property?**

III. RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP

The Grove Creek Complex meets both the relevance criteria (1 & 2) as well as the importance criteria (1 & 2). As the BLM's current management cannot protect this area, it is recommended that this area be considered as an ACEC.

Approval by Associate Field Manager	<u>/s/ Craig R. Drake</u>	<u>9/30/2009</u>
	Signature	Date
Concurred by Field Manager	<u>/s/ James M. Sparks</u>	<u>9/30/2009</u>
	Signature	Date

ACEC NOMINATION EVALUATION

NAME: Meeteetse Spires ACEC

LOCATION: T. 8 S., R. 20 E

SIZE: 965 acres (Alt A), 1,523 acres (Alt B), 2,173 (Alt. C), 1,523 acres (Alt D)

NOMINATED BY: BLM

RATIONALE: Unique vegetation and scenic values and rare plant protection.

EVALUATED BY: Nora Taylor, Carolyn Sherve-Bybee, Jay Parks

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

1. **A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).**

This area contains significant scenic value because of the spire remnants of the upturned Madison limestone.

2. **A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).**

The spire rock formations are used by peregrine falcons for nesting. Peregrine falcons are a Bureau sensitive species.

3. **A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).**

*This area contains populations of the rare plants, shoshonea (*Shoshonea pulvinata*) and Beartooth large-flowered goldenweed (*Haplopappus carthamoides* var. *subsquarrosa*). The area is adjacent to recovery areas for the Grizzly bear and Gray wolf.*

4. **Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.**

There are natural hazards due to the dangerous cliffs in the ACEC.

II. IMPORTANCE (characterized by one or more of the following):

1. **Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?**

*This area is considered significant for the rare plant species *Shoshonea pulvinata* which is known in three locations in Montana and only 12 world-wide and for *Haplopappus carthamoides* which is known from only eight locations in Montana.*

*Both species are regional endemics. *Shoshonea* is known only from the Absaroka and Owl Creek Mountains of northwest Wyoming and adjacent Montana. Beartooth large-flowered goldenweed is restricted to the eastern front of the Beartooth Mountains and the foothills of the Pryor Mountains.*

2. **Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?**

The Meeteetse Spires area is of religious significance to the Crow Tribe.

3. Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA?
4. Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare?
5. Poses a significant threat to human life and safety or to property?

The steep cliffs pose a hazard to the recreating public.

III. RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP

It is recommended that the existing Meeteetse Spires ACEC be retained and upon completion of the proposed LWCF land acquisition, the ACEC boundary be expanded to include the acquired land. This would add 558 acres and one shoshonea site to the ACEC. The 650 acres to the east of the boundary of the existing ACEC only contains one Beartooth large-flowered goldenweed site so this area is not recommended to be included in the ACEC. The entire Meeteetse Spires area is of religious significance to the Crow Tribe.

Approval by Associate Field Manager	<u>/s/ Craig R. Drake</u>	<u>9/30/2009</u>
	Signature	Date
Concurred by Field Manager	<u>/s/ James M. Sparks</u>	<u>9/30/2009</u>
	Signature	Date



560 acre acquisition area



560 acre acquisition area

ACEC NOMINATION EVALUATION

NAME: Pompeys Pillar ACEC

LOCATION: 30 miles east of Billings, MT

SIZE: 423 acres

NOMINATED BY: RMP amendment, 1996

RATIONALE: Protect historic and cultural values and wildlife/fisheries

EVALUATED BY: Dick Kodeski, Carolyn Sherve-Bybee, Jay Parks, Ernie McKenzie

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

- 1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).**

Pompeys Pillar has served as an important geological feature, landmark and register of travelers for hundreds of years. Hundreds of markings, petro glyphs, and inscriptions left by visitors have transformed this geologic phenomenon into a living journal of the American West. One of the Pillar's most notable visitors, Captain William Clark of the Lewis and Clark Expedition, arrived at Pompeys Pillar on July 25, 1806, on his return trip from the Pacific coast. Clark's journal recorded his stop at this "remarkable rock" with its "extensive view in every direction." He described an idyllic landscape of grassy plains, snow-capped mountains, and cliffs abutting the wandering river. Clark marked his presence by engraving his name and the date of his visit on the outcrop. In his journal, Clark named the rock Pompey's Tower (Pompey being Clark's nickname for Sacagawea's young son, Jean Baptiste Charbonneau). Ethnographic and archaeological evidence indicates that the Pillar was a place of ritual and religious activity. Hundreds of petroglyphs on the face of the rock, noted by Clark in his journal, reflect the importance of the monument to early peoples. The Crow people, the dominant residents of the region when Clark passed through, call the pillar the "Mountain Lions Lodge" in their language, and it figures prominently in Crow oral history. Pompeys Pillar also includes the markings and signature of a host of characters from the pioneer past, including fur trappers, Yellowstone River steamboat men, frontier army troops, railroad workers, missionaries, and early settlers. In 1873, Lieutenant Colonel George Armstrong Custer and his men camped at its base, where they came under attack from Sioux snipers. Crow ethnographies include numerous references to the Pillar as a landmark and as an area for religious activities such as fasting. Evidence of long-term use of the Pillar is ubiquitous in the vicinity. The burned rock, flaked stone and bone debris left from probably thousands of years of small, short-term occupations are visible in the flats surrounding the landform.

Pompeys Pillar has several designations associated with the site to protect its significant values, including most recently, status as a National Monument. Through Section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431), approximately 51 acres at Pompeys Pillar was designated a national monument in January of 2001, for the purpose of protecting the historic and cultural objects described above.

In 1965, Pompeys Pillar was officially designated a National Historic Landmark (NHL) primarily because of the significance of William Clark's signature panel. The boundaries designated include 6 acres above the 2,890 foot contour level. In 1983, the same six acre site was listed on the National Register of Historic Places as a significant cultural property.

- 2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).**

The Pompeys Pillar property serves as important habitat for significant fish and wildlife resources. The community of wildlife species present on the property are typical of the riverine environment of the middle Yellowstone Valley in the early nineteenth century. Bald eagles have been observed traveling in the Pompeys Pillar area. During spring migration, up to 100 bald eagles have been observed in the trees and over the river about 1.5 miles downstream from the existing bridge (BRW, biological assessment report, February 1999). Pompeys Pillar has a

rich diversity of song birds (meadowlark, black-capped chick-a-dee, and mountain blue bird), upland game bird species (sharp-tail grouse, pheasant) and raptors (kestrel; red-tailed, sharp-shinned, Cooper's, Swainson's, rough-legged and marsh hawks; and prairie falcon). The golden eagle, mallard, Canada geese, snow geese, red-breasted merganser, and common golden-eye have been observed in the corridor. The Yellowstone River corridor, adjacent to the Pillar, may be suitable habitat for the Pallid Sturgeon for potential future recovery efforts.

3. **A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features.**

Pompeys Pillar is a massive sandstone outcrop that rises approximately 127 feet on the banks of the Yellowstone River east of Billings. The Monument's premier location at a natural ford in the Yellowstone River, and its geologic distinction as the only major sandstone formation in the area, have made Pompeys Pillar a celebrated landmark and outstanding observation point for more than eleven thousand years of human occupation. The Pompeys Pillar property harbors a functioning ecosystem similar to that observed by the Clark party in the early nineteenth century. Many wildlife species typical of the early 1800s, have been observed in the area. The Pillar lies at a well-known ford of the Yellowstone. On the north side of the river, opposite the Pillar, the high sandstone rims are broken to allow Pompeys Pillar Creek entry into the Yellowstone. To the south is the mouth of the north-draining Fly Creek Valley. The ford and these natural passages must have been used for millennia by bison herds and hunters to access the Bull Mountains and Musselshell Valley and lands beyond to the north, and the Big Horn and Little Big Horn Valleys and the country to the south. The position of Pompeys Pillar at this strategic crossroads along north-south and east-west travel corridors virtually guaranteed it an important role in the prehistory and history of the middle Yellowstone Valley.

4. **Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.**

II. IMPORTANCE (characterized by one or more of the following):

1. **Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?**

Pompeys Pillar meets Importance Criteria 1. Pompeys Pillar has resources and qualities that are both locally and nationally significant. William Clark's signature is the only on-site physical evidence known for the Lewis and Clark Expedition. The hundreds of markings, petroglyphs, and inscriptions are evidence of the regional significance of the site. To further support the importance of the site, 51 acres was reserved and set-aside as Pompeys Pillar National Monument to protect the values and resources.

2. **Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?**

Pompeys Pillar meets Importance Criteria 2. The signatures and rock art are extremely fragile and are especially vulnerable to erosion. Comparison of the signature panels today with photographs made about 30 years ago show significant deterioration. Modern graffiti (vandalism) is the secondary threat to the historic and prehistoric motifs.

3. **Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA?**

Pompeys Pillar meets Importance Criteria 3. The area warrants protection in order to preserve and protect the significant resource values, as recognized through the National Monument proclamation. With the addition of visitor facilities to interpret the cultural and historical significance of the area, the site has become an important destination for visitors from across the region and country.

4. **Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare?**

5. Poses a significant threat to human life and safety or to property?

III. RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP

Pompeys Pillar meets both relevance (criteria 1, 2, and 3) and importance (criteria 1, 2, and 3). Since the original 1996 Pompeys Pillar ACEC Amendment, 51 acres within the ACEC have been designated a National Monument. In addition, a significant investment of resources were dedicated to the site to interpretive the historical, cultural and Native American values of the region. The site continues to draw visitors from across the country and provides local and regional schools interpretive opportunities as well as an opportunity to experience an ecosystem reminiscent of an 1806 environment.

Recommend: retaining the 432 acre ACEC, inclusive of the NM and NHL designations (and National Register Landmark). BLM management objectives should address the long-term conservation of the biological and heritage resources and provide visitor service/interpretive opportunities.

Approval by Associate Field Manager	<u>/s/ Craig R. Drake</u>	<u>9/30/2009</u>
	Signature	Date
Concurred by Field Manager	<u>/s/ James M. Sparks</u>	<u>9/30/2009</u>
	Signature	Date

ACEC NOMINATION EVALUATION

NAME: Pryor Foothills Research Natural Area/ACEC

LOCATION: T. 9 S., R. 27 E.

SIZE: 0 acres (Alt. A), 958 acres (Alt. B), 7,401 acres (Alt. C), 2,606 (Alt D)

NOMINATED BY: Public

RATIONALE: Area has a large concentration of Bureau sensitive plant species and rare plant communities.

The Gyp Springs contains high historic and cultural values

EVALUATED BY: Nora Taylor, Carolyn Sherve-Bybee, Jay Parks

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

- 1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).**

The Gyp Springs area (located in the south portion of the proposed Pryor Foothills RNA) contains significant historic and cultural values.

Historic Values: In 1864, Jim Bridger, famed early trapper and mountain man, and later guide for the Captain William Reynolds Exploration military and emigrant parties, blazed what would become known as Bridger Cutoff, an alternative route for a section of the Bozeman Trail emigrant route. The Bozeman Trail extended from Fort Casper, Wyoming to Virginia City through the territories of the Sioux and Northern Cheyenne and Northern Arapaho, who, at the time were hostile. The Bridger Cutoff extended west from Fort Casper, where it left the Bozeman Trail passing through relatively friendly Shoshone and Crow territory and then north to Edgar, Montana, where it then connected again with the Bozeman Trail. The Bridger Cutoff became the main emigrant trail through the region, particularly after the section of the Bozeman Trail through the hostile territory was abandoned in 1868. The Bridger Cutoff in some sections was used through the 1920s. The present day Gyp Springs Road (still in-use) follows generally along the Bridger Cutoff through the Gyp Springs area. The trail passes directly through and continues west of Gyp Springs. The spring was likely used historically as a watering and camp site and was an integral part of Bridger Cutoff of the Bozeman Trail. The trail was designated as site number 24CB1242 within the Montana portion in 1991 (Taylor 1991) beginning below Gyp Springs following Gyp Springs Creek north from the border with Wyoming and continuing along the creek, through the springs, and then continuing to the northwest. The Bridger Cutoff was determined eligible for inclusion to the NRHP on a state level. The trail has at least regional significance because it is associated with events that have made a significant contribution to the broad pattern of our history and it is associated with the lives of persons significant in our past.

Cultural Values: Gyp Springs and the immediate vicinity retain archaeological evidence of both historic and prehistoric use and is documented as site 24CB604. Confirmed substantial surface and subsurface cultural remains indicate possible long, intensive and continued use of the springs in prehistoric through historic periods. The prehistoric component is comprised of artifact scatter and intact subsurface deposits indicative of a habitation site. Diagnostic materials indicate an occupation or occupations as early as late Paleolithic/archaic period up to late prehistoric period. A Recreation Site Inventory and Evaluation Form completed by BLM before 1969 indicates a consideration of Gyp Springs and "Tipi Rings Area nearby" as contributing to the recreational attraction for the Crooked Creek Program Area. The "Tipi Rings Area" was recorded as 24CB604 in 1967. The combination of the historic and prehistoric values makes the cultural values outstandingly remarkable.

- 2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).**

The area contains sites of seven bureau sensitive plant species.

3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features.

The area contains the northern extent of the Wyoming Basins ecoregion.

4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.

II. IMPORTANCE (characterized by one or more of the following):

1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?

This area is the northern extent of the Wyoming Basins ecoregion. The area contains seven bureau sensitive plant species. Most of the Montana sites of the many of the species are found in this area.

The Gyp Springs locale contains more than locally significant qualities that give it special worth and distinctiveness or cause for concern, especially compared to any similar resource. The entire Gyp Springs site is eligible for the National Register for cultural and historic values, this is due to the prehistoric and historic use of the spring site. .

2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?

Impacts of climate change would be observed first where plants are at the edge of their range. Changing climates would allow plants to modify their ranges making peripheral populations important for range expansion.

The Gyp Springs locale has qualities that make it fragile, sensitive, threatened or vulnerable to adverse change. The historic resources (historic roads/trails) are sensitive and vulnerable to change as the roads (or road traces) can be impacted unintentional OHV use. The cultural resources are vulnerable to collecting and vandalism.

3. Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA?
4. Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare?
5. Poses a significant threat to human life and safety or to property?

III. RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP

I recommend designating 2,606 acres of the Pryor Mountain foothills as a Research Natural Area/ACEC for the management and protection of the rare plant values of this area. This area provides a unique area for research and education about rare plants and the impact of climate change to ecoregions at the edge of their distribution. The cultural resources located in the Gyp Springs area are an additional important value to the proposed RNA.

Approval by Associate Field Manager	<u>/s/ Craig R. Drake</u>	<u>9/30/2009</u>
	Signature	Date
Concurred by Field Manager	<u>/s/ James M. Sparks</u>	<u>9/30/2009</u>
	Signature	Date

ACEC NOMINATION EVALUATION

NAME: Stark Site ACEC

LOCATION:

SIZE: 799 acres

NOMINATED BY: BLM

RATIONALE: protect unique cultural values

EVALUATED BY: CSB

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

- 1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).**

The Stark Site complex (a series of 27 sites) has the potential to yield significant information on Native American societies of the Northwestern Plains from the Plains Archaic period to the early Historic period.

The complex of sites in the area includes evidence of the repeated impoundment, slaughter, and processing of bison over a long period of time. Included are seven separate bison bone deposits, each representing a kill and processing episode; a number of open occupation sites with artifacts, hearth features, and buried deposits; and a small rockshelter with rock art and with the potential for buried occupation deposits. At least two human burials have been removed from that area.

When originally recorded in 1972, one of the bison kill and processing sites yielded pottery shards similar to types found in late prehistoric contexts on the Missouri River in North Dakota. Limited excavation was subsequently conducted by Montana State University, Bozeman. The presence of this rare (for Central Montana) and exotic artifact type suggests that these peoples may have been among the earliest Crow to move into the area after splitting off from North Dakota agricultural groups.

II. IMPORTANCE (characterized by one or more of the following):

- 1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?**

The Stark Site complex possesses information that is regionally significant. The presence of this rare (for Central Montana) and exotic artifact type suggests that these peoples may have been among the earliest Crow to move into the area after splitting off from North Dakota agricultural groups. The timing and other factors critical to an understanding of the initial movement of the Crow people to the Montana-Wyoming area is problematical and has generated considerable research interest. The opportunity to investigate the activities of late prehistoric Plains nomad societies at a time when they were initially entering the area is unusual and may be quite significant, not only for an understanding of Crow and Hidatsa ethnohistory, but of understanding the ethnohistory of numerous other groups who entered the North American Plains during the late prehistoric and early historic time.

- 2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?**

The Stark Site complex has qualities or circumstances that make it fragile and vulnerable. The area is well known to artifact collectors and is easily accessible by a county road. The reports for sites in the complex include several references to unauthorized digging in site deposits. With repeated collection and vandalism, this valuable and interesting group of sites could be stripped of diagnostic artifacts and otherwise rendered useless for scientific and educational purposes in the future.

III. RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP

It is the specialist's recommendation that the Stark Site be retained as an ACEC. The Stark Site meets relevance criterion 1 as a significant cultural property. It also meets importance criteria 1 and 2 as it possesses information that is regionally significant and the sites are vulnerable and fragile. The area is approximately 799 public surface acres in

size and is considered eligible for nomination to the National Register of Historic Places. Although bison kill and butchering sites on the Northwestern Plains are not uncommon, the Stark Site complex represents the greatest density of such sites known on public land in south-central Montana. The presence of both kill and processing sites dating over a considerable span of time provides the opportunity to compare hunting and related strategies by various groups using the site over differing time periods. The area is considered significant for its potential on the prehistory of Native American societies in the plains environment.

Approval by Associate Field Manager	<u>/s/ Craig R. Drake</u>	<u>9/30/2009</u>
	Signature	Date
Concurred by Field Manager	<u>/s/ James M. Sparks</u>	<u>9/30/2009</u>
	Signature	Date

ACEC NOMINATION EVALUATION

NAME: Sykes Ridge Rare Plant ACEC

LOCATION: T. 9 S., R. 28 S.

SIZE: 11,600 acres

NOMINATED BY: Public (Peter Lesica)

RATIONALE: Rare Plant Protection

EVALUATED BY: Nora Taylor

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).
2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).
3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).

The proposed ACEC contains six bureau sensitive plants: Lesica's bladderpod, obscure evening-primrose, dwarf mentzelia, Daggett rockcress, Wind River milkvetch, yellow bee plant.

4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.

II. IMPORTANCE (characterized by one or more of the following):

1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?

The Sykes Ridge area has numerous sites of Bureau sensitive species.

2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?

This is an area of high endemism with populations of rare and regionally endemic species and communities.

3. Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA?
4. Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare?
5. Poses a significant threat to human life and safety or to property?

III. RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP

Do not designate as an ACEC because this area is already part of the East Pryor ACEC. Under all alternatives for the East Pryor ACEC, adequate protection for the rare plant resources will be included as part of the management actions. The majority of this proposed ACEC is also within the boundaries of the Pryor Mountain and Bighorn Tack-on Wilderness Study areas. The Interim Management Plan for WSAs also provides adequate protection for rare plants.

Approval by Associate Field Manager	<u>/s/ Craig R. Drake</u> Signature	<u>9/30/2009</u> Date
Concurred by Field Manager	<u>/s/ James M. Sparks</u> Signature	<u>9/30/2009</u> Date

ACEC NOMINATION EVALUATION

NAME: Weatherman Draw ACEC

LOCATION:

SIZE: 4,365 acres (Alt A), 4,986 acres (Alt B), 12,277 acres (Alt C), 12,277 acres (Alt D) **NOMINATED BY:** BLM and public

RATIONALE: protect unique cultural values **EVALUATED BY:** Carolyn Sherve-Bybee, Jay Parks

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

- 1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).**

Weatherman Draw contains significant historic, cultural and scenic values. There is currently a Weatherman Draw Archaeological District in place within the ACEC, but this archaeological district is only for the rock art. This district consists of 80 separate rock art sites.

There has been almost 80 years of work in the Weatherman Draw ACEC. The intriguing thing about this is that the majority of the work was driven towards finding and recording rock art. During the 1960s and 1970s most of the large panels were recorded and Loendorf focused his famous studies on the Valley of the Shields. This seminal work triggered emphasis on the rock art in the area by other archaeologists. The focus on rock art tended to skew the data set towards one aspect of the prehistoric use of the area.

In 2003, it was determined that a systematic inventory of the area was needed. Since 2003 the inventory of the Weatherman Draw and the surrounding area has focused on determining the nature of the cultural landscape. More to the point, it has focused on the settlement and spatial patterns of the area. This research is showing how the people who created the rock art in Weatherman Draw used and lived on the land.

Of the 80 recorded rock art sites within Weatherman Draw, many of these sites contain the distinctive styles of characteristic of Northern Plains aboriginal rock art of the past two millennia. The wide variety of motifs and styles visible on panels present evidence for evolutionary trends within styles or periods, for sequential styles varying through time, and possibly for parallel styles executed contemporaneously for differing functions or by different prehistoric groups. Data available from these sites can address a number of important research questions on the chronology and function of rock art among prehistoric and historic hunting societies and on Plains ethnography. Recent advances in dating techniques and innovations in ethnographic analogy and interpretation of ethnographic records are generating renewed interest in the interpretative potential of rock art studies.

Similarities in motifs among various panels at Weatherman Draw (for example in painted shield design), and similarities in method of execution (such as the technique of smoothing or preparing the surface where shields are subsequently painted; or the use of multiple colors in shield pictographs) argue for some internal relation among the sites. In some cases the motifs or techniques used on Weatherman panels are seldom found elsewhere in the region. The Weatherman Draw sites are relatively densely concentrated on the landscape, and are isolated on all sides by at least several miles of terrain where prehistoric rock art of any kind is rare to absent.

The close association of sites or loci marked by fire-cracked rock, flaked stone, hearths, or other debris suggests that the latter sites may have served, at least in part, as staging areas for the people producing the rock art.

Several tribes are recognized as having affinity to the Weatherman Draw area, including the Crow, the Northern Cheyenne, the Eastern Shoshone, and the Northern Arapaho. Each of these groups recognizes that the rock art in the Weatherman Draw area is an indicator that the area has great cultural and spiritual significance to past Native Americans, and therefore it has significance to present day native communities. The tribes have placed more or less emphasis on the continued physical integrity of the rock art panels.

In addition to the rock art and prehistoric habitation sites, the Weatherman Draw ACEC and surrounding area contain historic coal mines (found both in and outside of the ACEC), historic homesteads, evidence of native American (Crow) horse traps/corrals, vision quest and sacred sites (which are still in use) and historic graffiti.

II. IMPORTANCE (characterized by one or more of the following):

- 1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?**

The panels in Weatherman Draw include examples of rock art that is unique on public lands in Montana and as the majority of the rock art in Weatherman Draw consists of pictographs, these are among the most fragile cultural resources the BLM administers in Montana. Investigation of these sites has demonstrated that the Weatherman Draw panels and adjacent cultural deposits are yielding important data relevant to the construction of a chronology of rock art manufactured on the Northwestern Plains

- 2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?**

The threats to the continued existence of rock art in Weatherman Draw are both environmental and cultural. The rock art panels will continue to be susceptible to the slow degradation of the sandstone surfaces on which they were constructed, and to exfoliation, which breaks spalls of sandstone off the rock face, and could after years of moisture buildup, instantly damage or destroy a panel.

The second threat is vandalism, which is present at the sites (24CB408, 24CB630, 24CB1023). The modern damage to the rock art is either by graffiti or by an effort to make the rock art more visible by tracing over the glyphs with chalk or other substances.

As portions of the Weatherman Draw ACEC are considered to be of religious significance to the Crow and other tribes with affinity to the area, the solitude and the viewshed from specific sites are very important to religious practices.

III. RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP

It is the specialist's recommendation that the Weatherman Draw ACEC be retained and the ACEC be expanded to include the additional sites found in the area that reflect the use of the land by the people who created the rock art within the existing Weatherman Draw ACEC. This recommendation is based on the outstanding cultural and natural values and recognizing that preservation of those values is in the interest of the public.

The Weatherman Draw ACEC meets relevance criterion 1 and importance criteria 1 and 2.

The Weatherman Draw area is well known regionally as the locus of a remarkable series of prehistoric and historic rock art panels. Several tribes have expressed interest in the Weatherman Draw area, based on the reported archaeological sites and the traditional values their presence implies. The area is also known locally as a rugged, picturesque landscape and the more accessible portions of the Draw are visited regularly by hikers and other recreationists.

Approval by Associate Field Manager	<u>/s/ Craig R. Drake</u>	<u>9/30/2009</u>
	Signature	Date
Concurred by Field Manager	<u>/s/ James M. Sparks</u>	<u>9/30/2009</u>
	Signature	Date



Vision quest site still in use in the Weatherman Draw ACEC

Provinse Site



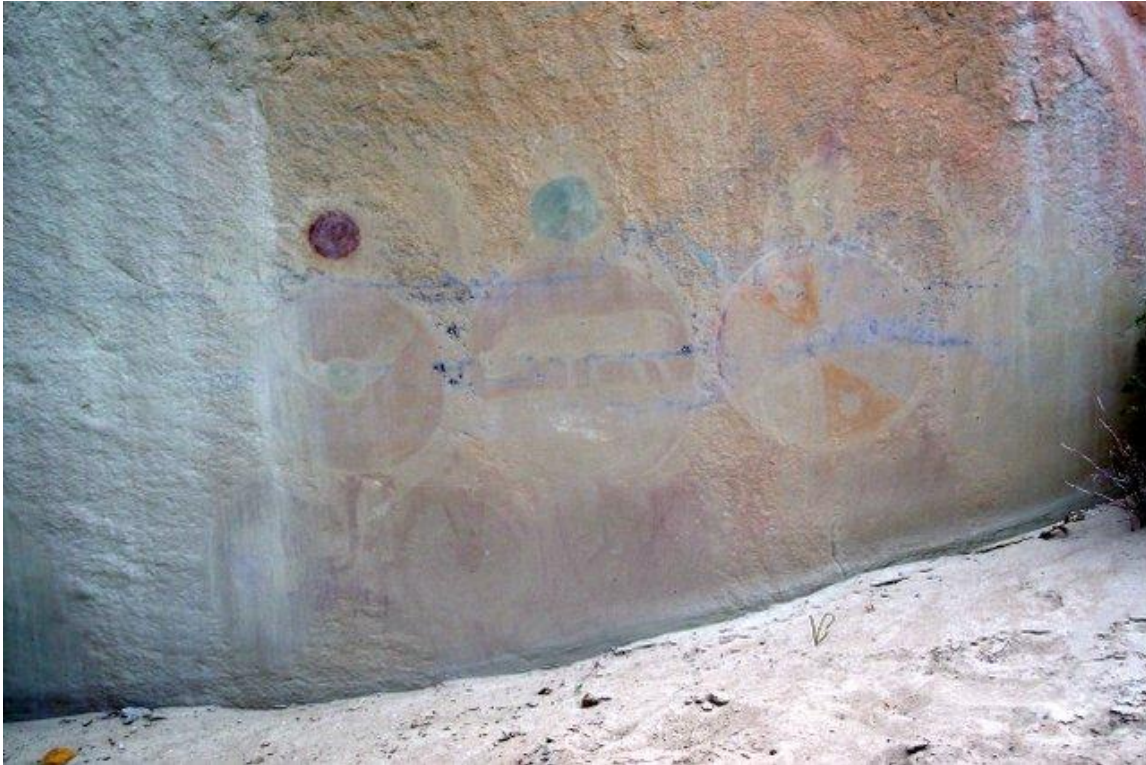
Provinse Site



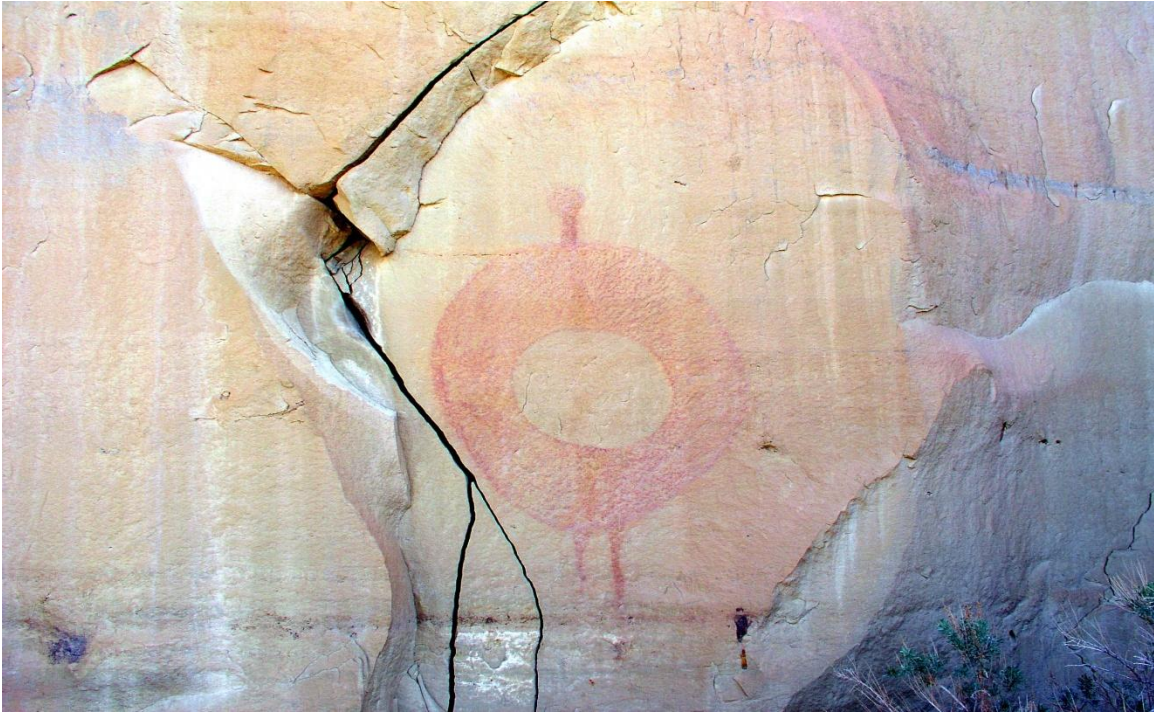
Bear Two-Shield site



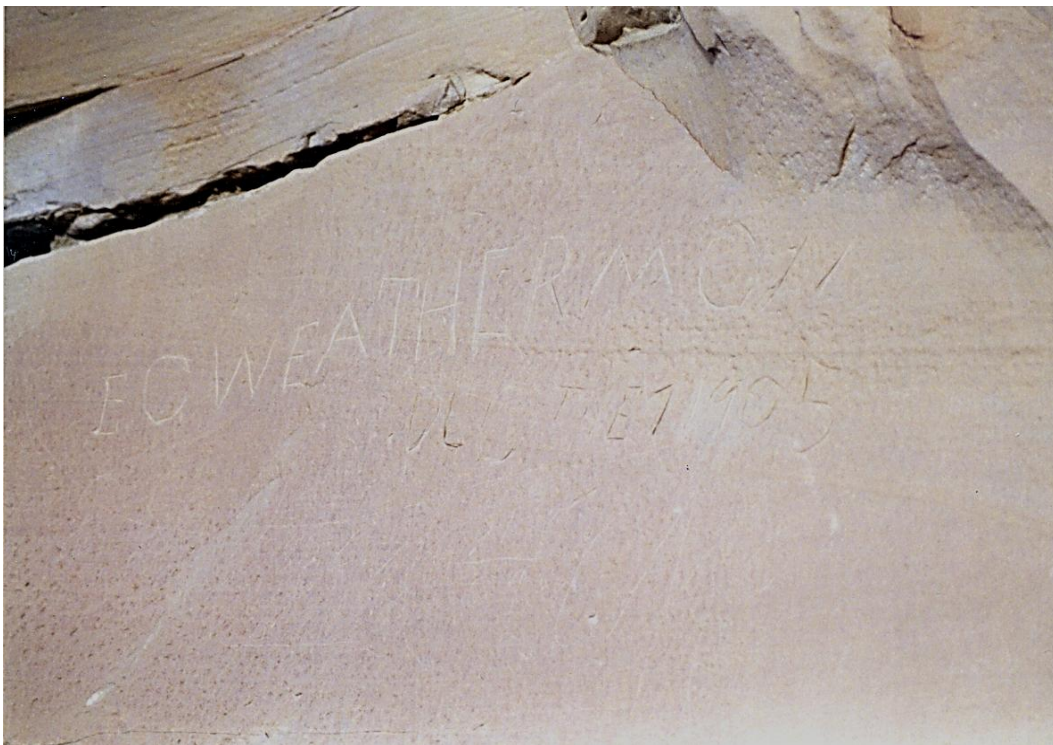
Valley of the Shields



Two Meter Man



E.C. Weathermon



Red Buffalo



Rock art panel located on the 615 acre acquisition



Historic coal

ACEC NOMINATION EVALUATION

NAME: Greater-Sage Grouse Habitat ACEC

LOCATION: portions of Carbon and Musselshell Counties, Montana

SIZE: 154,140 acres

NOMINATED BY: WildEarth Guardians

RATIONALE: Greater-Sage Grouse Habitat

EVALUATED BY: CSB, Jay Parks

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

I. RELEVANCE (must contain one or more of the following):

- 1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).**

No significant historic or cultural values are known. Scenic values are moderate, but are similar to those of many other areas in the planning area.

- 2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).**

Yes, the nomination meets the relevance criterion for wildlife resources. The nominated area provides habitat for greater sage-grouse (154,140 acres), a BLM sensitive species, and the area has also been identified as a core area by Montana Fish Wildlife and Parks.

- 3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).**

Yes, the nomination also meets the criterion for a natural system or process because of the condition of the sagebrush habitat in the nomination area.

- 4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.**

No natural hazards are known.

II. IMPORTANCE (characterized by one or more of the following):

- 1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?**

No. Although the area contains habitat for greater sage-grouse conservation as noted in the nomination material, the area is not significantly unique or more important than other habitat areas in this region.

Greater sage-grouse are distributed throughout the western United States. The portion of the distribution in Montana, Wyoming, North Dakota, South Dakota, Alberta, and Saskatchewan are designated as Management Zone I (Stiver et al. 2006). Management zones are delineations of

greater sage-grouse populations and sub-populations within floristic zones with similar management issues. Within Management Zone I in Montana, Montana Fish, Wildlife and Parks designated core areas (MFWP 2009) and Wyoming Game and Fish has also designated core areas in Wyoming (Wyoming Game and Fish, 2009). In addition, Montana Audubon has also designated five important bird areas for sage-steppe associated birds, including greater sage-grouse, in Montana, most of which are contained within the MFWP core areas.

While all of these areas are considered important to greater sage-grouse conservation, the areas are dispersed throughout the region and are not significantly unique to a specific region or planning unit. In addition, greater sage-grouse habitat in these core areas is owned by a number of different entities and habitat on BLM lands is not distinct from habitat managed by other ownership.

2. **Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?**

No, the area is not particularly fragile or sensitive to change as compared to other sites in Montana.

3. **Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA?**

Yes, it satisfies national priority concerns.

4. **Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare?**

No safety or public welfare concerns are known.

5. **Poses a significant threat to human life and safety or to property?**

No significant threats.

III. **RESOURCE SPECIALIST'S RECOMMENDATION FOR ACEC CONSIDERATION IN THE RMP**

Approval by Associate Field Manager

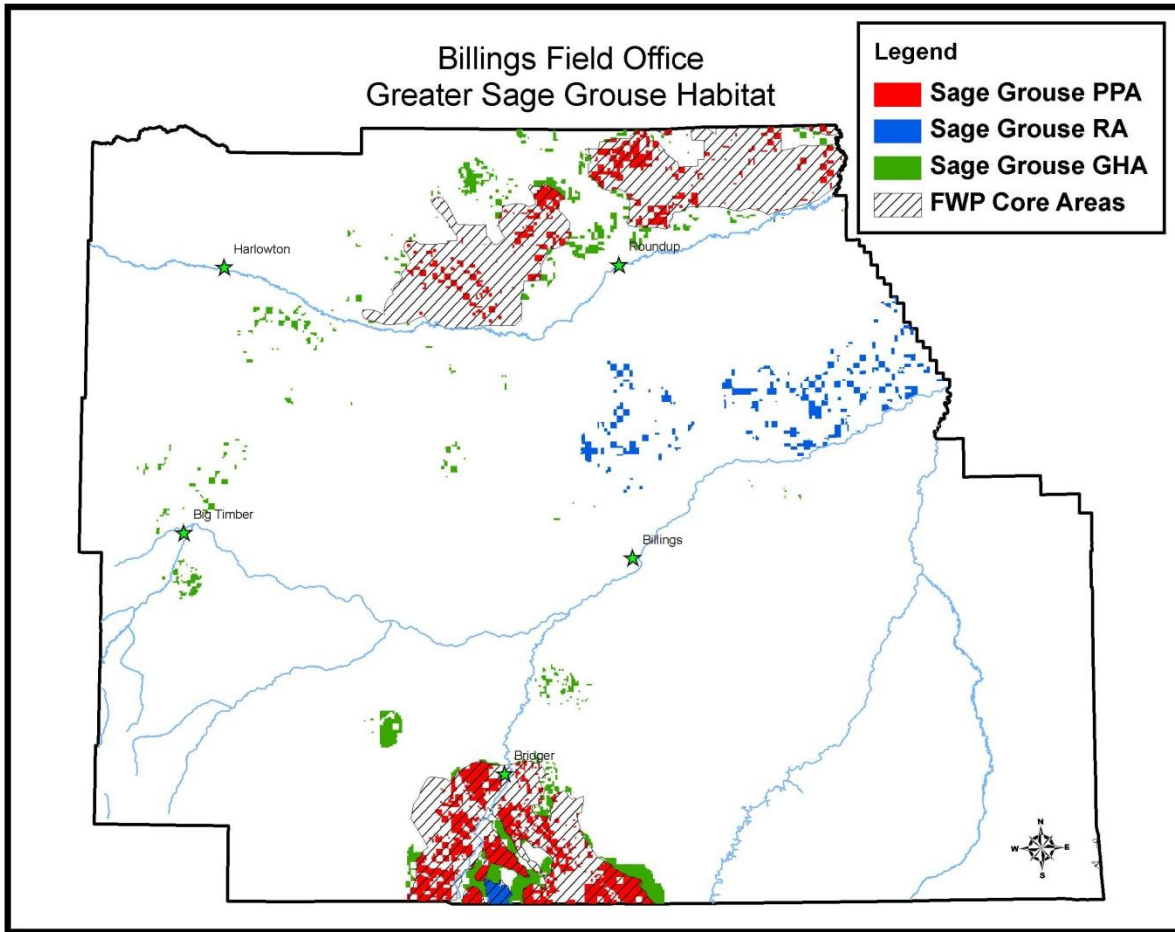
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Concurred by Field Manager

Signature

Date

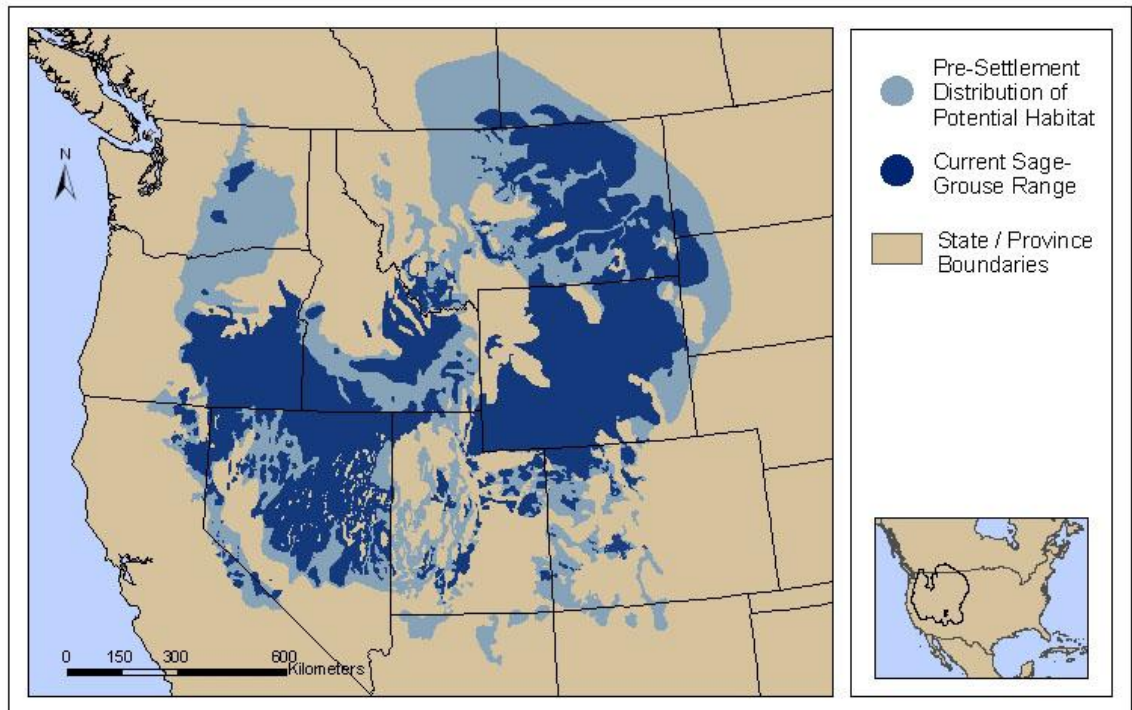


This map shows the Greater Sage-Grouse Protection Priority Areas (PPA), Restoration Areas (RA), and General Habitat Areas (GHA), as well as areas identified by Montana Fish, Wildlife, and Parks as sage-grouse core areas within the Billings Field Office. The areas identified as Sage-Grouse PPA are being proposed as an ACEC.

Background Information:

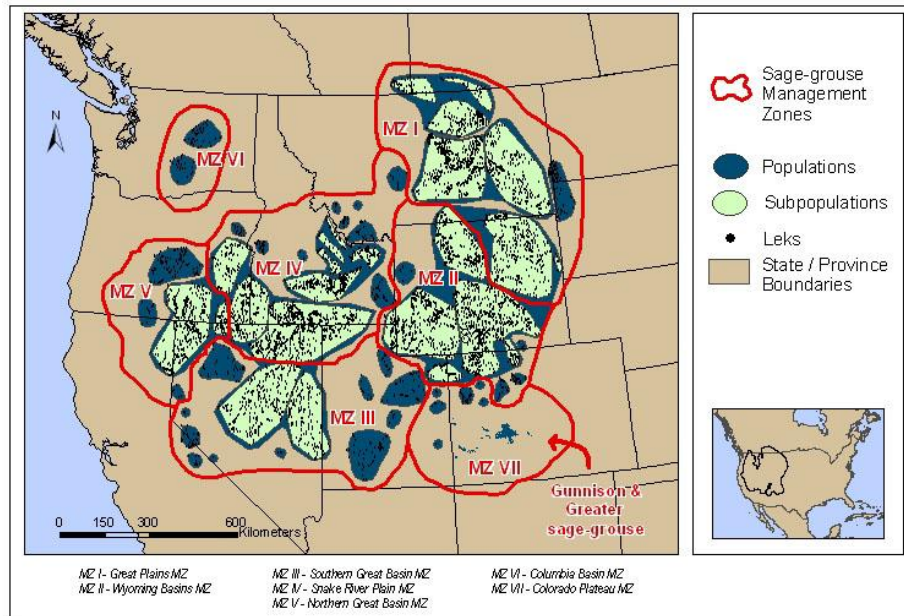
Greater sage-grouse are distributed throughout the western United States (Figure 1). The portion of the distribution in Montana, Wyoming, North Dakota, South Dakota, Alberta, and Saskatchewan is designated as Management Zone I (Figure 2) (Stiver, et al. 2006). Management zones are delineations of greater sage-grouse populations and sub-populations within floristic zones with similar management issues.

Figure 1
Greater Sage-Grouse Distribution



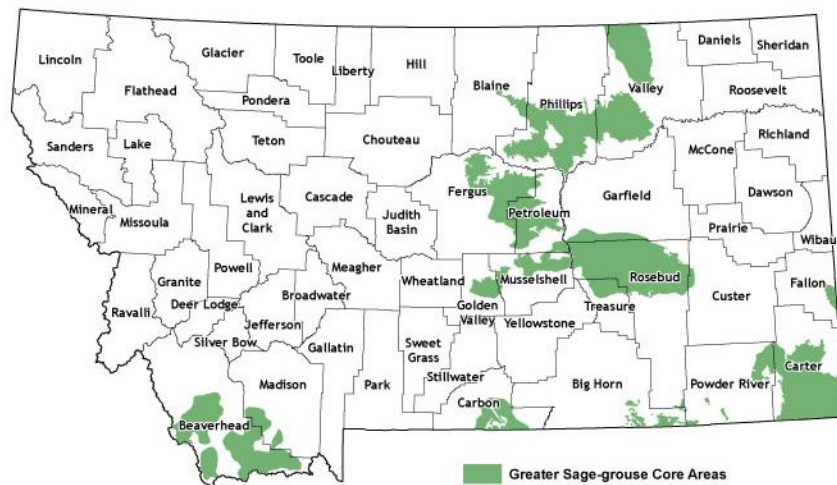
Source: Stiver, et al. 2006

Figure 2
Greater Sage-Grouse Management Zones (MZ)



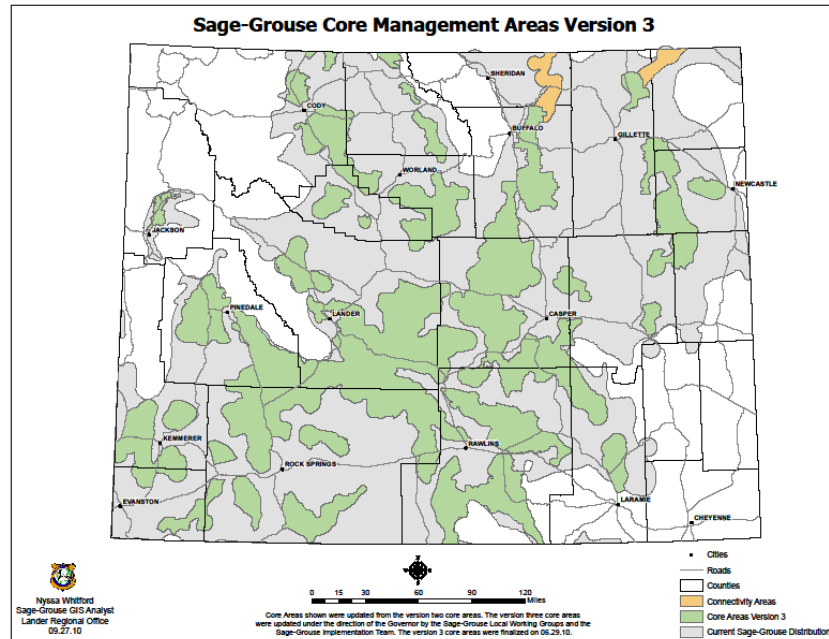
Within Management Zone I in Montana, Montana Fish, Wildlife and Parks (MFWP) has designated core areas¹ (Figure 3) (MFWP 2009) and Wyoming Game and Fish has also designated core areas in Wyoming (Figure 4) (Wyoming Game and Fish 2009).

Figure 3
Greater Sage-Grouse Core Areas (Montana)



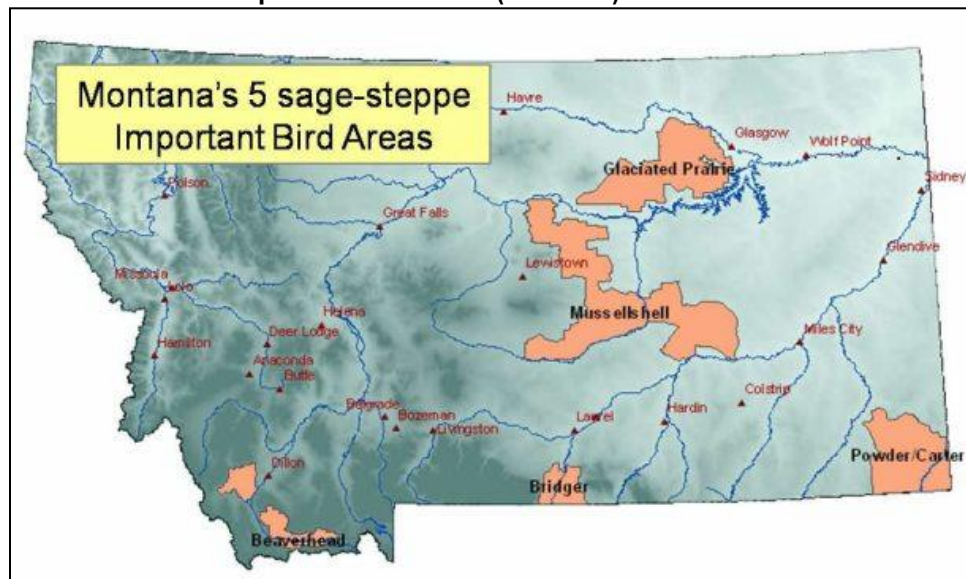
¹ Sage-grouse core areas are habitats associated with 1) Montana's highest densities of sage-grouse (25% quartile), based on male counts and/or 2) sage-grouse lek complexes and associated habitat important to sage-grouse distribution (MFWP 2009).

Figure 4
Greater Sage-Grouse Core Areas (Wyoming)



In addition, Montana Audubon has designated five important bird areas for sage-steppe associated birds, including greater sage-grouse, in Montana (Figure 5), most of which are contained within the MFWP core areas.

Figure 5
Important Bird Areas (Montana)



Source: Montana Audubon 2011 at <http://mtaudubon.org/birds/sageiba.html>

All of these areas are considered important to greater sage-grouse conservation. In addition, greater sage-grouse habitat in these core areas is owned by a number of different entities and habitat on BLM lands is not distinct from habitat managed by other ownership.

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